

**RECTIFIER DIODE**

# AUS501

Repetitive voltage up to

**600 V**

Mean forward current

**7890 A**

Surge current

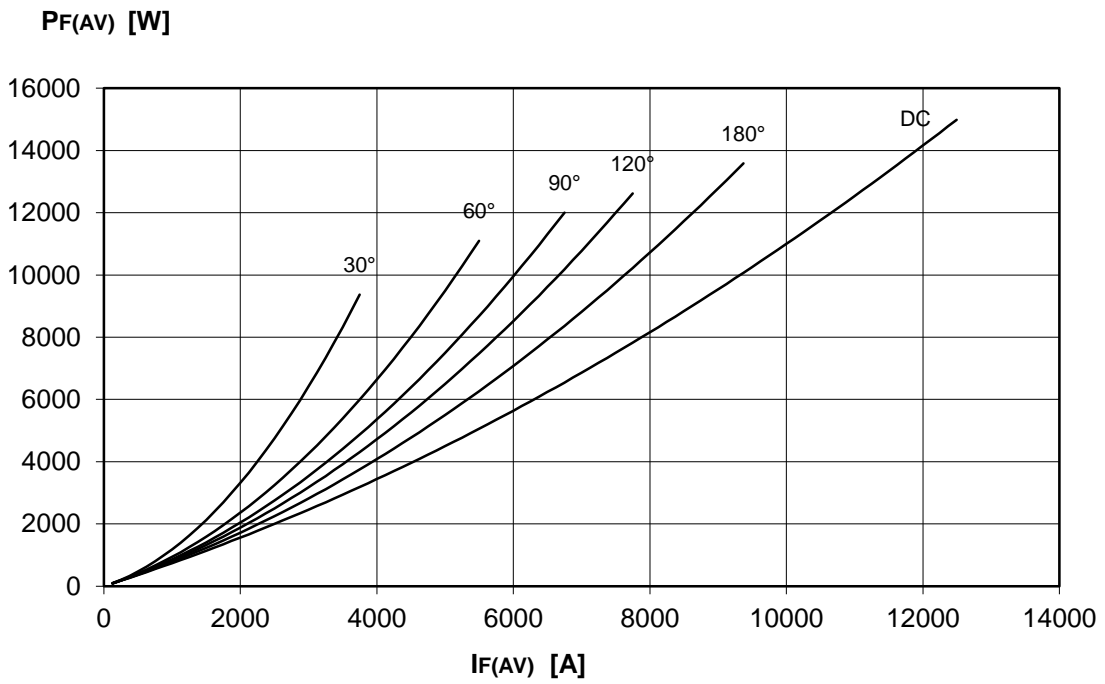
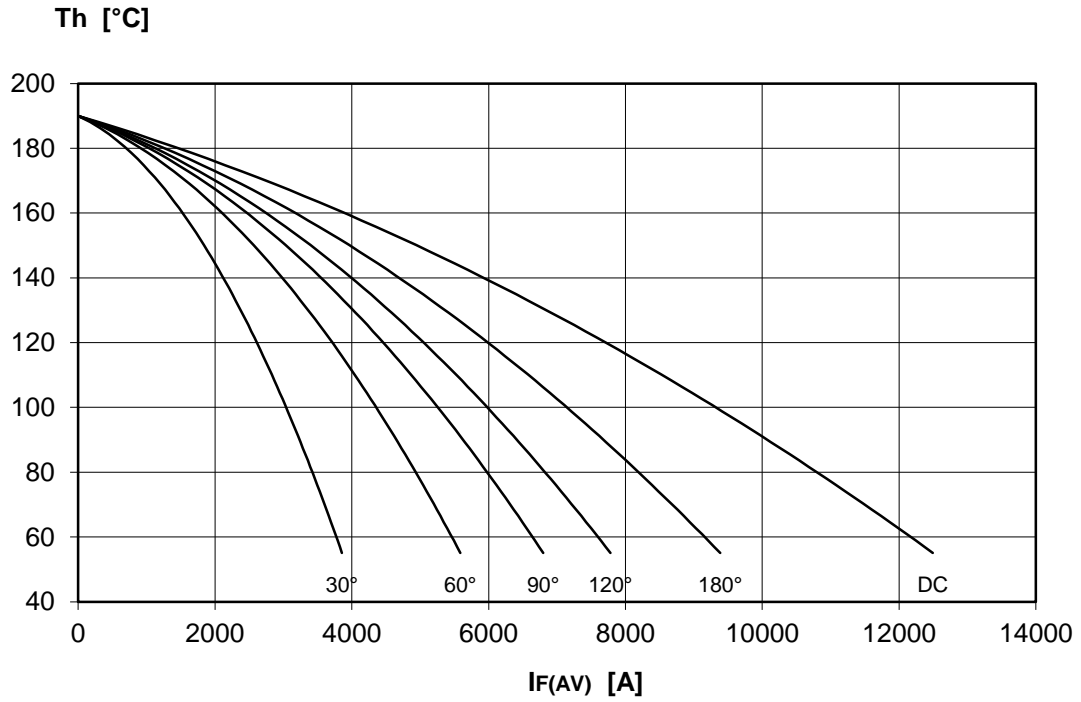
**16 kA**
**FINAL SPECIFICATION**

Mar. 17 - Issue: 4

Symbol	Characteristic	Conditions	T <sub>j</sub> [°C]	Value	Unit
<b>BLOCKING</b>					
V <sub>RRM</sub>	Repetitive peak reverse voltage		190	600	V
V <sub>RSM</sub>	Non-repetitive peak reverse voltage		190	700	V
I <sub>RRM</sub>	Repetitive peak reverse current	V=VRRM	190	50	mA
<b>CONDUCTING</b>					
I <sub>F(AV)</sub>	Mean forward current	180° sin, 50 Hz, Th=85°C, double side cooled		7890	A
I <sub>F(AV)</sub>	Mean forward current	180° sin, 50 Hz, Tc=55°C, double side cooled		15283	A
I <sub>FSM</sub>	Surge forward current	Sine wave, 10 ms without reverse voltage	190	16	kA
I <sup>2</sup> t	I <sup>2</sup> t			1280 x 10 <sup>3</sup>	A <sup>2</sup> s
V <sub>FM</sub>	Forward voltage	Forward current = 6000 A	25	0,94	V
V <sub>F(TO)</sub>	Threshold voltage		190	0,70	V
r <sub>F</sub>	Forward slope resistance		190	0,040	mohm
<b>SWITCHING</b>					
t <sub>rr</sub>	Reverse recovery time		190		μs
Q <sub>rr</sub>	Reverse recovery charge				μC
I <sub>rr</sub>	Peak reverse recovery current				A
<b>MOUNTING</b>					
R <sub>th(j-c)</sub>	Thermal impedance, DC	Junction to case, double side cooled		9,0	°C/kW
R <sub>th(c-h)</sub>	Thermal impedance	Case to heatsink, double side cooled		5,0	°C/kW
T <sub>j</sub>	Operating junction temperature			-30 / 190	°C
F	Mounting force			25.0 / 50.0	kN
	Mass			50	g
<b>ORDERING INFORMATION : AUS501 S 06</b> standard specification <input type="checkbox"/> <input type="checkbox"/> VRRM/100					

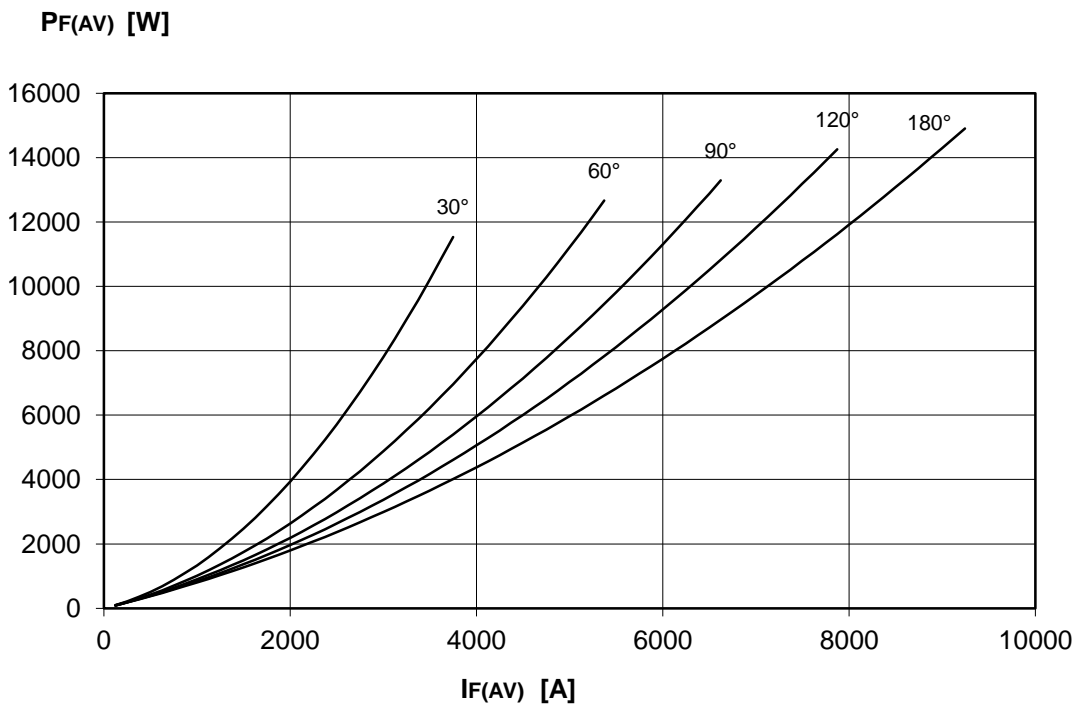
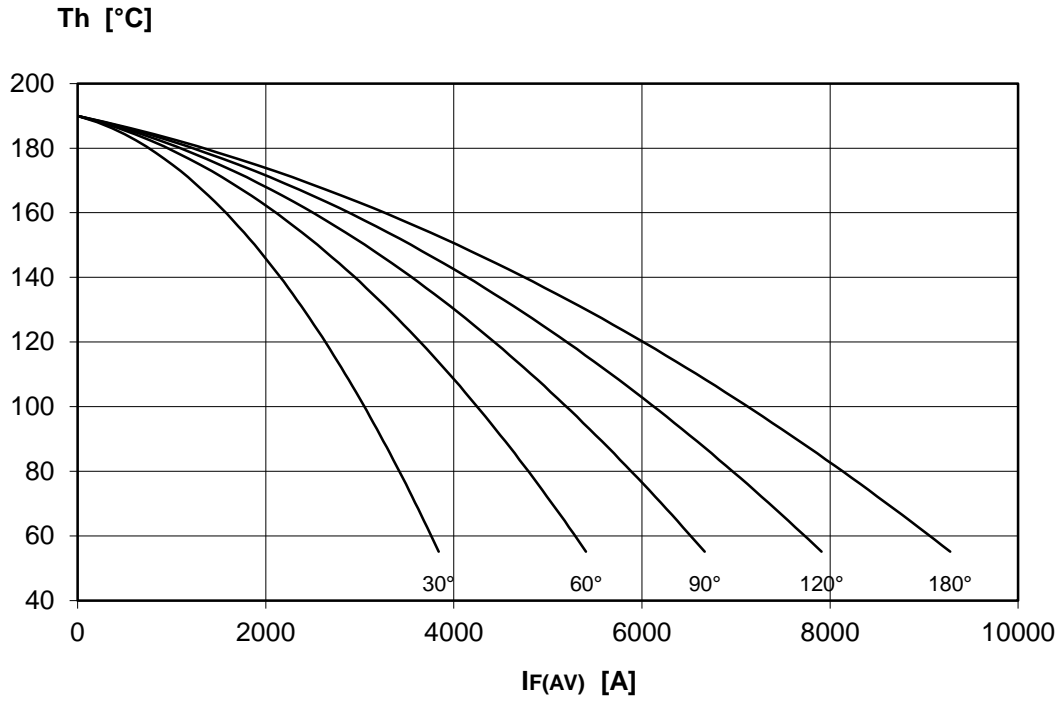
**DISSIPATION CHARACTERISTICS**

SQUARE WAVE

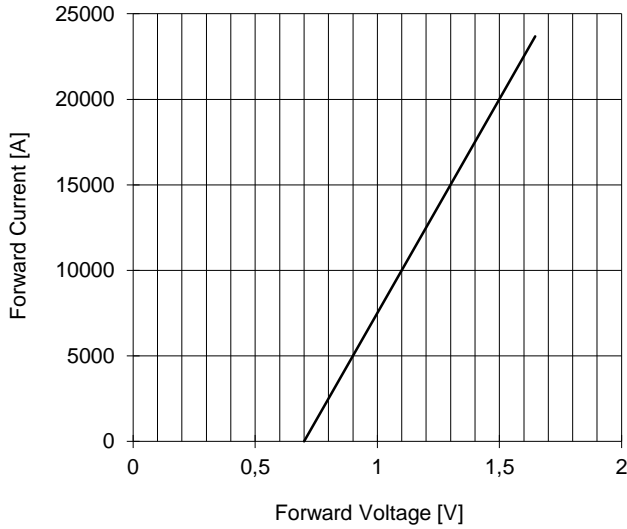


DISSIPATION CHARACTERISTICS

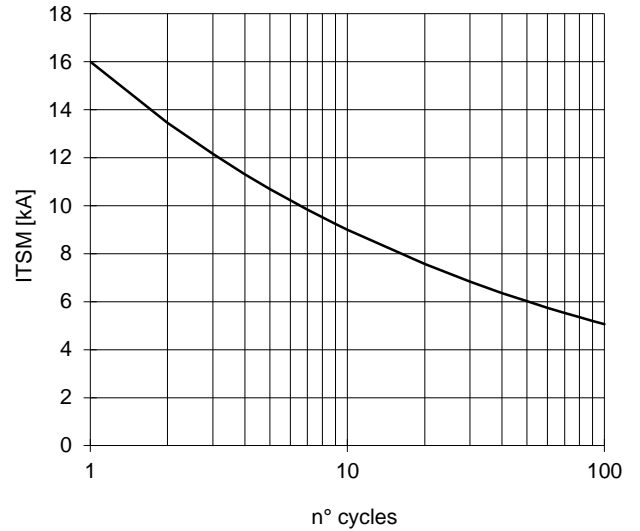
SINE WAVE



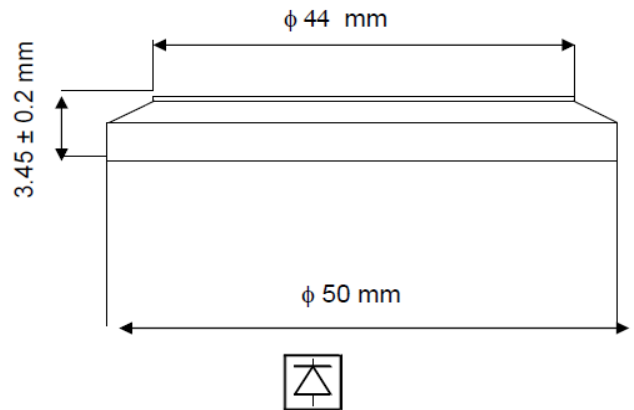
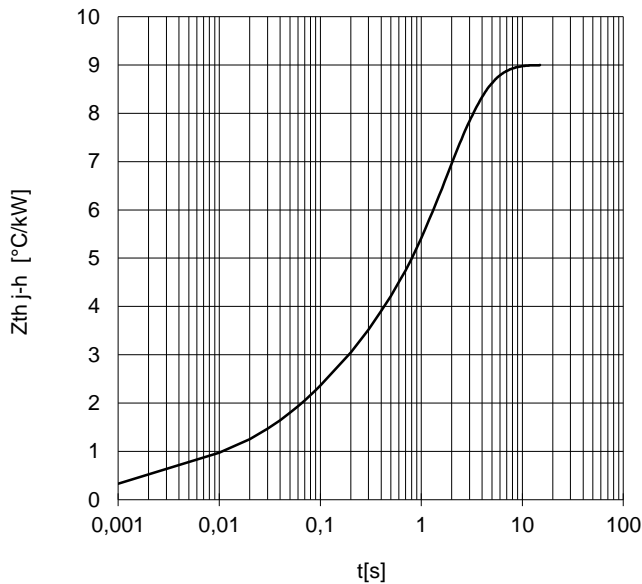
FORWARD CHARACTERISTIC  
T<sub>j</sub> = 190 °C



SURGE CHARACTERISTIC  
T<sub>j</sub> = 190 °C



TRANSIENT THERMAL IMPEDANCE  
DOUBLE SIDE COOLED



All the characteristics given in this data sheet are guaranteed only with uniform clamping force, cleaned and lubricated heatsink, surfaces with flatness < .03 mm and roughness < 2 μm.  
In the interest of product improvement POSEICO SpA reserves the right to change any data given in this data sheet at any time without previous notice.  
If not stated otherwise the maximum value of ratings (symbols over shaded background) and characteristics is reported.

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